

Nordac

First transistorized digital computer kit in the world

...And Your Guides to It

The comprehensive text accompanying Nordac provides a complete introduction to the principles and techniques of computerized operations. Beginning with simple demonstrations to familiarize you with Nordac, later experiments show you how computers do arithmetic, solve problems, use logic to make decisions . . . and how computers are used to work for man.

Chapter I: Assembly Manual

Parts List; Ohm's Law; Resistor Color Coding; Wiring Tips; Soldering Tips; Complete Step-By-Step Assembly Instructions (Fully illustrated and accompanied by wall diagrams.)

Chapter II: Introduction to Components and Operations of Digital Computers

SECTIONS AND EXPERIMENTS: *Power Supply; Program Wires; Binary Output Lights; Input Pushbuttons; The NOR Panel; Matrix Terminals; Common Terminals; The Oscillator; Operation of Output Lights, Input Switches, the NOR Element; Use of Two NOR Elements; Five Interconnected NORs; NORs with Feedback; High-Speed Switching; Two Input NORs; The "Not" NOR Connection.* APPENDICES: *(Describing) Resistance, Capacitance and Capacitors, and the Transistor.*

Chapter III: What Is a Digital Computer?

SECTIONS AND EXPERIMENTS: *The Basic Computer Elements—Input, Processing, Storage, and Output Units; Basic Computer Functions and Nordac—Human Input Functions, Basic Storage Functions, Concept of a Flip-Flop, Basic Processing Functions, Human Output Functions, Nordac Output Functions; Expansion of Basic Computer Functions—Input Media and Codes, Direct Console Input, Punch Card Input, Alpha-Numeric Card Code, Binary Card Code; The Binary Nature of Input—Tape Inputs, Storage Media and Codes, Bi-Stable Elements, Large Computer Storage; Other Forms of Storage—External Storage, Magnetic Core Storage, Magnetic Drum Storage, Magnetic Disk Storage; NOR Memory Circuits—Manual NOR Memory, Self-Locking NOR Memory, Two-Input NOR Memory;*

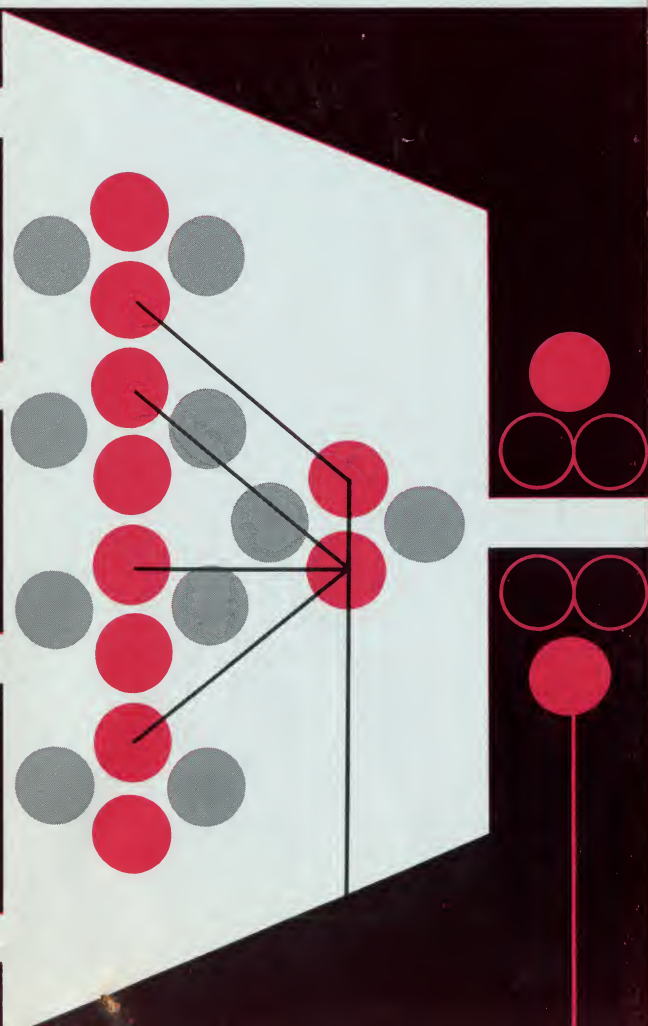
Commercial Computer Equipment; Computers of Tomorrow; APPENDIX: Analogue and Digital Computers Compared.

Chapter IV: How Computers Make Logical Decisions

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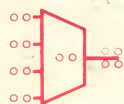


Nordac

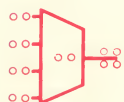
Your Introduction to Computers...

Your Preparation for the Profound Changes Computers Are Making in Every Aspect of Business and Professional Life

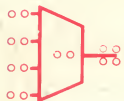
- First transistorized digital computer kit — Newest of Scientific Development Corporation's fine computer products
- Demonstrates the basic principles and operation of million dollar computer systems
- Performs hundreds of experiments
- Easy to assemble and operate — No previous knowledge of advanced math or science is needed
- Accompanied by comprehensive assembly manual and instructive text



Advanced circuitry... Transistorized (solid state) NOR circuitry, as found in many of the most advanced commercial computers



High Speed... 50,000 operations per second

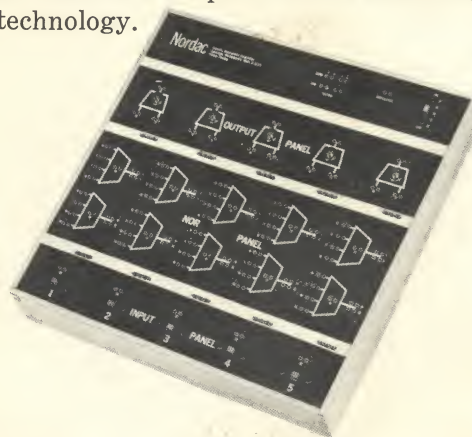


Dependable... Continuous, reliable performance is assured by the use of professional transistors, diodes, indicators, and Nordac's patented assembly techniques

Nordac will be your passport to the exciting, rapidly developing world of computers. You will be able to explore at first hand the possibility of a profitable and satisfying career in the field of information technology... Or improve your position of understanding wherever computer operations are discussed. Not a toy, Nordac is an educational experience.

A New World of Exploration...

There is always something exciting about an important new experience. Nordac gradually takes you from your first steps in circuitry to complete computer programs. No prior knowledge of advanced math or science is needed. The text explains everything you do and learn. With Nordac you actually demonstrate through experiments the basic theories and operations of modern computer technology.



Programming Nordac is a simple matter of plugging in color-coded program wires, easily changed as desired. Nordac receives information through input switches, processes data as programmed, and displays answers on output lights. Nordac adds, subtracts and solves mathematical problems but should not be confused with electronic calculators... It employs and teaches *computer* logic and *computer* operations.

Nordac's transistorized NOR circuitry duplicates that found in many advanced computer systems. As you develop programs for Nordac, the text explains how your programming steps relate to those performed in actual commercial installations. Photographs of commercial computers familiarize you with their appearance as you learn their functions. Nordac is your introduction to a real understanding of modern electronic computers and their importance in today's world.

... And Your Guides to It

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Fun to Build

Even if you've never assembled a kit before, Nordac's unique design and step-by-step instructions result in a "professional" job! Clear, concise explanations, fully illustrated and accompanied by extra-large wall diagrams, guide you from start to finish. To assure you of top performance for your computer, Nordac introduces an ingenious new concept in kit construction: miniature solder-pot terminals provide fast, highly reliable connections with a minimum of soldering heat near sensitive components (patents pending). Normal soldering time has been cut in half!

You'll enjoy building Nordac, and your experience with its construction will become all the more meaningful when you begin to explore the world of machines that "think" with your own amazing computer!

Guarantee

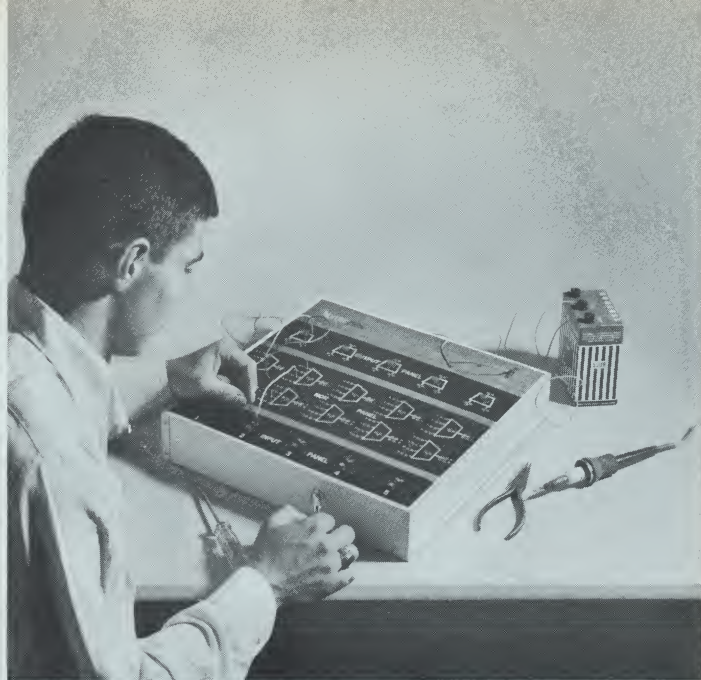
We guarantee the component quality standards of each Nordac Transistorized Computer Kit. All kit parts are warranted to be free from defects in workmanship or manufacture. Any defective parts will be replaced free of charge for a period of six months from date of purchase.

Specifications

Size: 15" x 15" x 3"	Wt: 6 lbs. (approx.)
Transistors—15	Sleeving
Resistors—93	Panel (pre-punched,
Terminal Cinches	sub-assembled)
Switches	Chassis (metal)
Lights	Rubber feet
Bus bars	Color-coded program wires
Terminal Boards	Assembly and instruction
Hook-up wire	text (and wall charts)

45 volt (low-voltage) "B" battery required.

Specifications Subject to Change Without Notice.



"During the past ten years, the government and the country as a whole have learned to rely on computers for many essential tasks, ranging from processing large quantities of data to making rapid calculations that can immediately affect the safety and welfare of the nation. It would be difficult to imagine how the government and industry could work effectively today without the help of electronic computers. Computers have expanded our horizons and have demonstrated to the world important advances in American technology."

—John F. Kennedy, President of the United States

Nordac is an ideal introduction to today's computers. It is a solid state digital computer specifically designed to demonstrate the concepts, components and circuitry of full-scale computer systems. Nordac will clearly show you how computers "think": what computers are, how they function and solve problems, their potential and limitations. Nordac is complete with a vivid, comprehensive text to guide you through a new world of experimentation and understanding . . . Easy to build and exciting to operate, Nordac is an important step forward in the fascinating world of computers.

Other Fine Computer Products

In addition to Nordac, Scientific Development Corporation manufactures the famous Minivac 601 Digital Computer Simulator, a fully-assembled and tested computer system. With thousands in use, Minivac 601 is the most successful computer of its kind in the world.



For computer education programs in schools and business, a professional computer simulator, the Minivac 6010, was developed. Designed for intensive use in classrooms, office or laboratory, Minivac 6010 is an essential part of any computer orientation or education program. Curricula, for use with this unit, are also available.



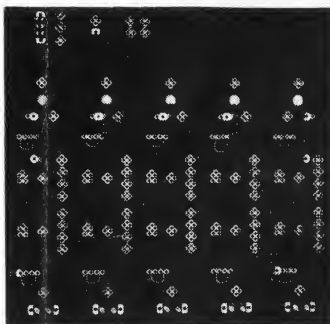
Watertown, Massachusetts

To order, please contact your local dealer or write national distributor:

Scientific Educational Products Corporation
30 East 42nd Street
New York 17, New York

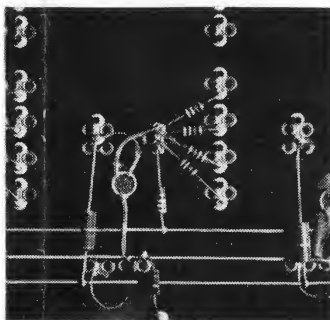
take this panel

(And 15 transistors, 93 resistors
plus switches, lights and other
professional components.)



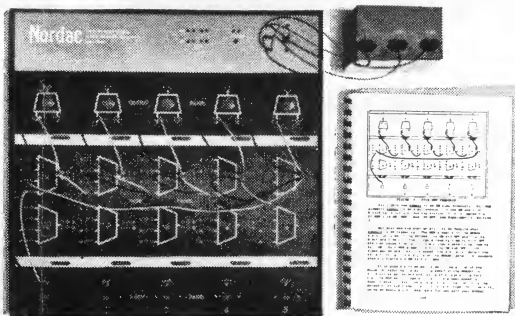
wire it

(With NOR logic circuits, like
those in advanced, solid state
high-speed computers.)



you've built your own computer!

(And you can program it yourself.
Explore the rewarding world
of computers with Nordac
and its 227-page manual.)



Today computers are running everything from traffic lights to satellites. Tomorrow they will be even more important—in everybody's life, including yours. That is why Nordac was developed. Nordac is the world's first fully-transistorized digital computer kit. With it you can actually demonstrate the principles and operations of million-dollar computer systems. Nordac is your first step in a profitable and rewarding new field. You can build it with ease. It comes with step-by-step assembly instructions and wall diagrams. And Nordac is easy to understand and operate. No prior knowledge of advanced math or science is needed. Your complete kit, together with assembly manual and comprehensive instructive text, to guide you through more than 200 exciting computer

experiments, costs just \$64.95. How about it? How about entering the fascinating world of machines that think? The way to start? Send in the coupon.

Scientific Educational Products Corporation
Dept. 128
30 East 42nd Street, New York 17, N. Y.

- ☐ Please rush me complete Nordac kit and comprehensive instruction manual. Satisfaction guaranteed.
☐ Check or money order enclosed ☐ Ship C.O.D.
☐ Send me more information about Nordac and the rewarding world of computers.

Name _____

Address _____

City _____ Zone _____ State _____

REPRINTED FROM

**POPULAR
ELECTRONICS**

APRIL 1963

SCIENTIFIC EDUCATIONAL PRODUCTS CORPORATION

30 East 42nd Street • New York 17, N. Y.

ORDER FORM

QUANTITY	DESCRIPTION	UNIT PRICE*	TOTAL
	NORDAC	\$64.95	

*IN N.Y.C. PLEASE ADD 3% CITY SALES TAX.
ORDERS ARE SHIPPED F.O.B. FALL RIVER, MASSACHUSETTS.
PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

☐ Check (or Money Order) Enclosed

☐ Ship C.O.D.

Is the correct shipping address shown? Please make any necessary changes. (Use reverse side if needed.)

T H NELSON
2328 SW 17TH ST
MIAMI 45 FLA

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Please be sure
to sign here:

SIGNATURE

DATE

Nº 14111

Nº 14111

SATISFACTION GUARANTEED

OUR PRODUCTS CARRY AN UNCONDITIONAL MONEY BACK GUARANTEE FOR TEN DAYS FOLLOWING DATE OF PURCHASE. A WARRANTEE CARD, ENCLOSED WITH EACH UNIT, PROVIDES DETAILS ON OBTAINING REFUND.

IN ADDITION, EACH UNIT IS FULLY WARRANTED AGAINST ANY DEFECTS IN WORKMANSHIP OR MATERIALS FOR A PERIOD OF SIX MONTHS FOLLOWING PURCHASE. ANY SUCH DEFECTS WILL BE CORRECTED FREE OF CHARGE.

GENERAL FACTORY SERVICE OR COUNSEL IS ALWAYS AVAILABLE.

Please keep this stub for your records.

Thank you.

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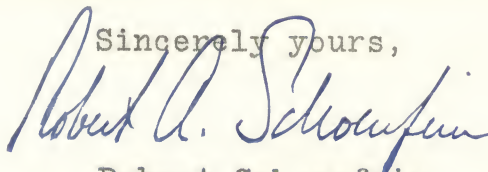
Nordac is exciting news... a low cost, fully-transistorized digital computer you can easily build yourself! The first kit of its kind in the world! And with it you can explore every basic principle and operation of modern computer technology.

Nordac takes the mystery and complexity out of computers and brings the subject down to earth. In a world where computers are performing a rapidly expanding host of functions in virtually every business and profession, Nordac provides the background necessary to understand and utilize this new technology.

You need no special skill, nor any prior knowledge of advanced math or science to assemble or operate Nordac. It comes with a remarkably clear and comprehensive 227-page book. Each step in assembly is carefully explained with the aid of extra-large illustrations and wall diagrams. Each experiment, from elementary programs to complete problem-solving operations is a rewarding challenge.

Nordac is an educational experience with limitless potential for an inquiring mind. The enclosed brochure gives you complete details.

Sincerely yours,



Robert Schoenfein
Director of Marketing

RS:n
Enclosures.

**SCIENTIFIC
EDUCATIONAL
PRODUCTS**

CORPORATION ■ 30 EAST 42ND STREET ■ NEW YORK 17, NEW YORK ■ TN 7-9480

Dear Sir:

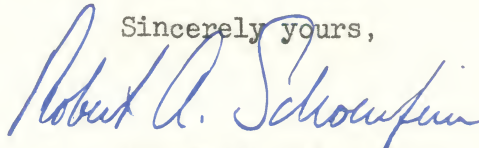
Some time ago it was our pleasure to answer your request for details about Nordac, the world's first transistorized digital computer kit.

You were not alone in your desire for information about Nordac. This unique machine has been providing a new world of exploration for hundreds of purchases throughout the country -- businessmen, students, educators, engineers, doctors, hobbyists -- men with inquiring minds, anxious to apply themselves in new directions.

One can hardly pick up a newspaper or magazine today without recognizing the tremendous importance of computer technology in our fast-moving world. There is a vital need for men who can understand computers, who can evaluate and discuss them intelligently, to bring fresh intelligence and new ideas to their business and professional lives.

Nordac and its 227-page text provides you with the unusual opportunity to explore computers on your own, with a fascinating and enjoyable home study program -- all at very reasonable cost. Soon you can be operating your own desk top computer workshop, guiding Nordac through every basic function of modern machines that think, simulating their limitless applications to everyday life. Here is a highly rewarding educational hobby with real potential value. No special knowledge or skills are needed to start -- just your initiative right now, and Nordac.

Sincerely yours,



Robert A. Schoenfein
Director of Marketing

RS:fn
Enc.